

MANUFACTURING EXTENSION PARTNERSHIP

Success Stories from the Field

Hiawatha Log Homes

Michigan Manufacturing Technology Center

Hiawatha Log Homes Achieves Enterprise-Wide Transformation

Client Profile:

Hiawatha Log Homes designs and manufactures log homes with a variety of customized home models. Hiawatha's sales and design department employs about 15 people and is housed in a spectacular custom-built log home located in Munising, Michigan. The production facility, housed next door, employs about 35 people and processes logs into log home components. The company uses a dealership network to service and install the manufactured components. The company also supports a large supply chain of lumber harvesters and transportation services.

Situation:

Hiawatha Log Homes President and Owner, Paul Essinger, originally a forester, invested in Hiawatha Log Homes with a loan from Northern Initiatives, Michigan Manufacturing Technology Center's (MMTC) Upper Peninsula regional office, a NIST MEP network affiliate. Essinger sensed that the future need of high-end homebuyers would require larger diameter logs, requiring a new production line capable of handling larger logs. Paul sought the help of Joe Boyle, Northern Initiatives' (NI) Professional Business Advisor (PBA) and Lean Manufacturing practitioner to discuss a new plant layout.

Solution:

Instead of taking the traditional approach and focusing on a single-point solution, Boyle and Essinger used the Manufacturing Extension Partnership (MEP) 360vu professional business practices and a coaching conversation model to explore Hiawatha's operations enterprise-wide. Using tools that Boyle learned in MEP 360vu Professional Business Advisor training and experiential learning, such as contextual listening, discovery questioning, and feed back informing, Boyle and Essinger were able to define the company's problem more clearly; building a new production facility may not put Hiawatha Log Homes in a position to sell more homes or be more profitable, due to a significant bottleneck in design. With designs for custom homes taking up to 12 weeks, Hiawatha knew they were in a position to lose many home sales.

Reducing design lead-time was explored during one of the coaching sessions. It was an outrageous request --2 hour lead time for preliminary design. Essinger got it right away. Even if Hiawatha Log Homes could reduce design lead times to 2 weeks, it would provide them with a huge strategic advantage. Hiawatha's design team and Boyle explored their current state of design, which amounted to working harder and longer and using 2-d geometry with little process improvement or time allotted to improve processes. The team clearly defined the metrics of how their designs were currently processed and were able to identify huge areas where they could eliminate non-value added activity and lead-time. With the use of new technology, they began to see a new, improved design process; one that was faster, more accurate and fully integrated with sales, design, estimation, materials and operations. This would provide the end-user with a much more pleasing design--an important part of the log home building experience. Hiawatha's future would depend upon adopting the use of a three-

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dimensional CAD modeling technology.

Joe Boyle used web technology to introduce several service providers in design, CAD software, and design processes to the Hiawatha Log Home design team to help them see that an improved future state was attainable. David Pacifico provided the best value proposition with ArchiCAD design software and The Log Home Solution. It was a great fit and Essinger moved fast to invest in the new technology. The NI loan fund headed by Todd Horton provided the loan to help implement the new technology quickly. The project moved at a fast pace due to Essinger's desire to move Hiawatha Log Homes at the peak of the log home industry.

Results:

- * Replacement of 2-d geometry by 3 dimensional CAD technology.
- * Adopted use of templates, which provide endless opportunities for the mass personalization of homes with fast, low cost, accurate and high quality designs.
- * Positive feedback from customers regarding new designs.
- * Design changes are faster, more accurate, eliminating mistakes.
- * Reduced lead times from 12 weeks to days.

Testimonial:

"We need to help the owners envision what their dream home will be. ArchiCAD provides a great tool to communicate what I interpret their vision to be."

Chad Salmela, Design Team Member